NHS
Royal Cornwall Hospitals
NHS Trust

Radiotherapy to the brain

One + all | we care

The name of your consultant is:

……

The radiographer who explained the treatment to you is:

……

You can contact us on:

Tel: 01872 258340 - 9am to 5pm

What is radiotherapy?

Radiotherapy treats cancer by using high energy X-rays. These X-rays destroy cancer cells while doing as little harm as possible to normal cells. Radiotherapy is often given following surgery or it may be given as primary treatment alone.

Radiotherapy is completely painless and usually takes between 10-12 minutes to give each day.

How often do I need treatment?

Radiotherapy is usually given daily during the week with a break at weekends. The course may last from 1 week to 6 weeks. Your oncologist (cancer specialist) will decide how many treatments you need and why.

What is a planning scan?

Before you start radiotherapy it is essential that we plan very carefully where the treatment is to be given. The most accurate way of doing this is by a CT scan. This scan is done in the oncology department and takes about 10 minutes.

Before the scan is done we will need to make a head shell, which will ensure your head is kept still during the radiotherapy. The head shell is made in the scanning room using thermoplastic material, which is soaked in warm water to make it soft.

When soft, the thermoplastic will be moulded across your face and neck and held in position until cool. When cool the head shell is fastened to the board you will be lying on and the scan will be done. Making the head shell takes about 10 minutes.

It may also be necessary to give you an injection of contrast during the scan. The contrast enhances the CT image, which can be helpful in some cases. The contrast is given via a cannula (fine tube) which is inserted into a vein in your arm or hand.

What happens on my first day of treatment?

1. One of the radiographers will collect you from the waiting room and explain exactly how the treatment will be given.
2. You will then be taken into the treatment room and asked to lie on the couch with your head on a special head pad. Your head shell will be fitted and the couch will be moved into the treatment position.
3. The radiographers will take several minutes ensuring everything is aligned correctly. They will tell you when they are about to leave the room to begin the treatment. The radiographers are able to both see and hear you during the treatment.

When the radiographers leave the room they will take an X-ray or CT scan (CBCT) to make sure you are in exactly the correct position. This may be done daily. Once this image has been checked the radiographers will begin the treatment which only takes a few more minutes.

You will have the option to see a Review Radiographer each week to discuss any side effects you may be experiencing. You may need routine blood tests during your course of treatment.

What side effects can I expect?

Short term effects

These are likely to happen during and immediately after radiotherapy. We will monitor these side effects carefully. You will see a review radiographer or your oncologists weekly.

- **Hair loss** – you will lose any hair within the treatment area. The majority of hair loss is temporary and hair usually starts to grow back two to three months after finishing treatment.

  Sometimes it grows back a slightly different colour or texture (and perhaps not as thickly as before). Occasionally hair loss is permanent, depending on the dose and length of treatment you have. While this can be a distressing side effect we can arrange for you to have a wig or for someone to talk to you about using hats or scarves.
- **Nausea** – occasionally people have feelings of nausea but this can be effectively treated with anti-nausea medication (called anti-emetics), which your oncologist will prescribe. You may find that you don't feel like eating or you may feel hungrier than usual, especially if you have been prescribed steroid tablets.
- **Tiredness** – radiotherapy often makes people feel tired, especially toward the end of treatment and for a few weeks after. If you are taking steroid tablets you may not sleep so well if you take them late in the evening. You can discuss the best time to take your medication with your doctor.
- **Skin reaction** – the skin/scalp in the area being treated may become pink, dry and itchy, similar to mild sunburn. Take care of your skin by washing gently and using only a mild soap or shampoo and not having the water too hot. Pat dry gently with a soft towel and do not use styling products or a hairdryer. Cover up with a hat or scarf when you go out to avoid exposure to the sun or cold winds.
- **Lethargy** – this may occur during your treatment but more commonly after radiotherapy is finished. You may find that you generally lack energy and can't be bothered to do much. This is often worst about two weeks after treatment but usually improves within a week. It may get worse again four to six weeks after treatment.

Long term effects

These may occur months or years after radiotherapy. Improved planning and treatment techniques have made some of these less likely to happen.

- **Somnolent Syndrome** – this is fatigue or tiredness which may occur 6-8 weeks after radiotherapy.

- **Memory loss** – it is possible to experience short term memory loss following radiotherapy. You may also experience slowing down of some mental processes.
- **Damage to vision** – in some cases the optic nerve will be within the treatment area. Although the optic nerve can tolerate a certain amount of X-ray exposure, there is a small risk of visual impairment.

  There is also a risk of cataract formation if the lens of the eye is close to the treatment area.
- **Hormonal changes** – the pituitary gland is situated in the brain. This gland controls hormone production and if it is within the treatment area you may experience some hormonal changes.
- **Secondary malignancies** – there is a slight risk of radiotherapy inducing further malignancies. In a small number of cases a benign tumour called a meningioma may arise following radiotherapy to the brain.

General advice

Some people find that the symptoms of the brain tumour temporarily get worse after the treatment has finished. This can be worrying but is in fact the reaction to the radiotherapy. If you find this happening it is important to discuss it with your review radiographer, nurse specialist or oncologist so that you can get the right medical support.

Everyone having radiotherapy is different. Your treatment is specific to you and so is the way you react to the treatment. If you are worried about anything at all, however trivial it may seem, please mention it to one of the radiographers and we may be able to help.

Data protection

All personal details and photographs taken during the planning and delivery of radiotherapy will be used in accordance with this Trust's policy on the protection and use of patient information.

If you would like this leaflet in large print, braille, audio version or in another language, please contact the General Office on 01872 252690

RCHT 596

Revised 07/2019 V4 **Review due 07/2022**